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ASYMMETRIC WARFARE:
AN HISTORICAL PERSPECTIVE

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Asymmetric Warfare: An Historical Perspective
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ABSTRACT

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There has been a great deal of discussion over the past few years among defense officials regarding the likelihood that the United States military will face a multitude of asymmetric challenges in the 21st Century. Senior government officials, members of the academic community, and military leaders have warned us repeatedly about these threats and the possible consequences. When reviewing their statements and the available literature pertaining to asymmetric warfare, however, one gets the sense that this type of warfare is a new phenomenon. This perception is false. Weaker belligerents have used asymmetric methods, tactics, and techniques during conflicts with stronger or technologically superior enemies throughout recorded history. The critical question is whether US military and government leaders are aware of the history of asymmetric warfare and are using that knowledge to adequately prepare our nation and soldiers, or to tailor our force structure, to successfully engage and defeat asymmetric enemies in future conflicts.

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ASYMMETRIC WARFARE: AN HISTORICAL PERSPECTIVE

There has been a great deal of discussion over the past few years regarding the likelihood that the United States military will face a multitude of asymmetric challenges in the 21st Century. Senior government officials, members of the academic community, and military leaders have warned us repeatedly about these threats and the possible consequences. When reviewing their statements and the available literature pertaining to asymmetric warfare, however, one gets the sense that this type of warfare is a new phenomenon. This, of course, is not the case; with the exception of the use of nuclear weapons by non-state actors, all of the generally accepted asymmetric threats facing the United States military have a historical precedent.

Asymmetric warfare, tactics and weapons have been used throughout recorded history. In 500 BC, Sun Tzu wrote, "If the enemy is superior in strength, evade him. If his forces are united, separate them. Attack him where he is unprepared. Appear where you are not expected." "Exploiting an adversary's weaknesses while exploiting one's own strengths is the heart of the 'art of war'. It has been written about and taught to military leaders for more than 2,500 years. A successful asymmetric tactic that allows one's adversary to prevail on the battlefield is always a concern to a military commander."[1]

In this paper I will address some of the reasons why the United States is now the likely target of asymmetric threats, as well as the types of threats we will probably face in the near future. I will touch on the goals and desired effects of asymmetric tactics and warfare. Throughout the course of this survey I will provide historical examples of the use of asymmetric tactics, methods, and weapons to demonstrate that asymmetric warfare is not a new phenomenon. By understanding that asymmetric warfare is not a new phenomenon, current and future military leaders will be better prepared to face these sorts of threats because they can study how other commanders have successfully, or unsuccessfully, dealt with asymmetric challenges in earlier conflicts.

Definitions

Before entering into the above topics, it will be useful to provide some definitions of asymmetric warfare. There are numerous definitions presently being used to describe asymmetric warfare, however, I have chosen to utilize the definitions currently used by the Department of Defense (DOD) and the Central Intelligence Agency (CIA). The DOD and CIA definitions of asymmetric warfare are presently the two most widely accepted and used definitions throughout the US defense establishment.

The following is the DOD definition of asymmetric warfare, which was created by the Joint Staff: "Attempts to circumvent or undermine an opponent's strengths while exploiting his weaknesses

using methods that differ significantly from the opponent's usual mode of operations."[2]

The CIA defines asymmetric warfare as "The use of innovative strategies, tactics, and technologies by a 'weaker' state or sub-state adversary that are intended to avoid the strengths and exploit the potential vulnerabilities of larger and technologically superior opponents. This includes:

1. The selective use of weapons or military resources by a state or sub-state group to counter, deter, or possibly defeat a numerically or technologically superior force.

2. The use of diplomatic and other non-military resources or tactics by a state or sub-state group to discourage or constrain military operations by a superior force."[3]

There are several common threads to be found in DOD and the CIA views of asymmetric warfare. Some of the generic points regarding asymmetric warfare found in each organization's literature include:

- Pitting one's strengths against selected enemy weaknesses.

- Using unexpected, unconventional, or innovative methods of attack or defense.

- Offering a disproportionate effect in terms of outcome to the military or financial investment.

■ Asymmetric threats can be either technologically or culturally based.[4]

Goals and Desired Effects of Asymmetric Warfare

There are two primary goals of an opponent who may utilize asymmetric methods against the US. The first is to raise the level of risk and cost to the point that the United States will elect not to intervene militarily in a situation, or once intervention has begun, to cause us to disengage due to unacceptable losses or financial costs.[5] The second is to force a change in US foreign policy.

There are numerous results or effects that a future opponent may desire to achieve through the use of asymmetric warfare. A few of these results include:

■ To prevent or delay the deployment of US military forces into a region.

■ To degrade US military effectiveness, especially by limiting US application of superior technology before or during combat operations.

■ To limit the United States from forming effective coalitions or obtaining basing support.[6]

■ To attempt to breakup a US led coalition once it has been formed. The Iraqis attempted this during OPERATION DESERT STORM by shooting SCUD missiles at Israel. Their hope was that Israel would enter into

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the conflict, causing the Arab coalition against
Iraq to fall apart.

■ To erode American public support for the conflict.

■ To gain political prestige within the belligerent's
country, region, or the world. This is especially
true of leaders in the Arab world. Both Anwar Sadat
and Saddam Hussein gained considerable prestige
among specific segments of countries throughout the
Middle East.

■ To cause a significant psychological impact on an
opponent through actions which will shock or confuse
them, and cause them to lose the initiative, freedom
of action, or will to continue the fight.

■ To cause a disproportionate amount of casualties or
financial losses through attrition, etc.

Why the United States is Likely to Encounter Asymmetric Challenges in the 21st Century

Throughout our history the US military has primarily fought
enemies who challenged us via conventional, force-on-force,
methods. Our Armed Forces have been preparing for the past fifty
years to fight a major conventional/nuclear war with traditional
enemies such as the former Soviet Union and North Korea. Since
the mid 1990s, however, our senior government and military
leaders, as well as many in the academic community, have raised
the likelihood that future armed challenges against the United

States will involve asymmetric methods. In the following paragraphs I will discuss some of the reasons and conditions which have brought about this change.

The stunning victory of US and coalition forces in OPERATION DESERT STORM in 1991 was viewed by many in the US defense establishment as confirmation of the validity of the "Air-Land Battle Doctrine" which US forces have been training to since the 1970s. In addition, the victory in the Gulf War also proved the supremacy of American military equipment and technology over that provided by the former Soviet Union. These points, as well as other lessons learned from the Gulf War did not go unnoticed by our potential enemies around the world. Most of the world now realizes that at this point in time the US military is virtually unbeatable in a conventional conflict. It is therefore unlikely that a future opponent will choose to pick a fight with the US and fight us in the same manner as Saddam Hussein did. (A conventional fight on open terrain where he allowed us the luxury of sufficient time and space to establish a logistical base of operation and a defensive foothold before making our attack.) Future enemies are unlikely to allow us to exercise all of our strengths the way Saddam did.

The demise of the former Soviet Union is another major contributor for explaining the increasing threat of asymmetric warfare for US forces. Ironically, the bipolar world which existed when the Soviet Union was a military superpower and peer competitor of the United States caused a level of uneasy stability throughout the developing world. During the Cold War,

many countries which are now likely to pose a threat, or challenge, to US interests and policies abroad were more or less forced to choose to be in either the US or Soviet camp if they were to receive the foreign aid and military assistance they desired. Now that the Cold War is over, much of that aid has disappeared, leaving these countries to contend with their problems on their own. Many of these states have poor economies and corrupt or inefficient governments, thus they are ripe for internal unrest and power struggles between the factionalized and disenfranchised segments of their populations. The United States, being the only remaining superpower, is then likely to become the external threat, or 'cause of their misfortunes', which these disenfranchised segments will target in order to rally domestic support for their cause.

The US military's growing dependence on high technology equipment and weapons may also contribute to an enemy's decision to challenge us asymmetrically. In addition, since the end of the Gulf War, the US Armed Forces and government have been in a near constant state of downsizing, both in personnel and budgets. The result has been that the Army, for example, is focusing on creating a digitally focused force. (To include 'just in time' combat logistical support.) This will reportedly help improve command and control and battlefield management; as well as allow our smaller force to fight the battles and wars of the future. The problem is that the focus of this new digital force is primarily centered on fighting a peer competitor in a conventional conflict, rather than against a foe utilizing

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asymmetrical methods. High technology equipment and weapons may prove ill suited, or useless, in an asymmetric conflict due to the combat environments which an asymmetrical opponent may force us to fight in. The other problem is that a digital army will be very dependent on satellite systems, computer networks, advanced electronics, etc.; all of which utilize centralized nodes, ground stations, or other very vulnerable facilities. A worthy opponent will certainly attempt to destroy these sorts of 'high payoff' targets because by destroying them they will disable many of the high-tech systems we are so dependent on, thus reducing the technological edge enjoyed by US forces. Imagine, for example, the effect on US guidance systems and precision guided weapons systems, etc., should an opponent succeed in disabling our Global Positioning Satellite (GPS) system, or if a satellite imagery ground station was destroyed. Numerous nations, including the US, are currently developing laser, microwave, and other radio frequency (RF) based weapons which will be capable of disabling satellites and electronics from a significant distance. While digitalization and the dependency on high technology will, in many circumstances, improve the US military's combat performance; it also will leave us even more vulnerable to an opponent who opts to utilize asymmetric methods against us.

Since the Korean War, US military deployments overseas have been characterized by limited objectives. These limited objectives have generally been imposed upon our military by our civilian leadership. Having limited objectives, however, is not always a bad thing. The problem occurs when the United States

enters into a conflict with only limited objectives in mind, but to our enemy, the conflict is a matter of national, personal, or tribal survival. Such was the case during the Vietnam War, Somalia, and during the current situation in Kosovo. During these conflicts, our enemies were willing to endure a substantially higher level of casualties, misery, and privation than the US was willing to sustain because their survival was at stake and ours was not. The same could be said for the Spanish guerrillas who fought against Napoleon's forces during the Peninsular War (1808-1814), and the Russian population during their struggle against the Germans in WWII. The strength of any enemy's will should never be underestimated. It is equally important to fully understand the limits of your own will to engage in a conflict on equal terms with an enemy. If the will isn't there, than it is a mistake to commit US troops or resources to the conflict.

Unfortunately, the perception exists in many countries that one of the major vulnerabilities and weaknesses of the United States is a serious lack of national will to endure casualties or a prolonged conflict. For this reason, a potential enemy may utilize asymmetric tactics and methods to exploit our weakness in this area.

The availability and proliferation of relatively low cost high technology weapons and technology, as well as the willingness of several nations to arm any rogue-nation or extremist group, also makes the prospects of waging an asymmetrical conflict against the United States more palatable

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and feasible for a potential opponent. For the past 50 years, Russian, Chinese and North Korean weaponry has been used by our foes around the globe. With the dismemberment of the former Soviet Union, however, a greater variety of sophisticated weapons and military technology have become available to whoever is willing to pay for them. The dismal state of the Russian economy has driven many in the Russian defense establishment to sell anything they can get their hands on; in some cases just so they can feed their families.

Besides weapons and technology, many unemployed, unpaid, or desperate Russian and Eastern European scientists, military, and intelligence officers are also offering their services to other countries, and potentially to non-state actors or groups as well. In addition, several developed countries such as France, Germany, and Japan have provided technical assistance or technology to countries like Iraq, Libya, and Iran which assists them in their attempt to produce Weapons of Mass Destruction (WMD).

Conventional weapons sales to rogue-states by some of these countries are also common. For example, Germany sold nine diesel-powered submarines to the Iranians a few years ago. The French have sold the Iranians Exocet missiles, and The North Koreans and Chinese sell SCUD missiles to all three of these rogue nations. In addition, before the demise of communism, Czechoslovakia sold over 50 tons of Semtex plastic explosives to Libya and Iraq. The list goes on and on. The point is that a wide variety of potent, high-tech weapons are now available, often at bargain-basement prices, to whoever wants to buy them.

It is only a matter of time until terrorist groups utilize shoulder-fired surface-to-air missiles (SAM) to shoot down US civil aircraft. (SAMs have already been used by insurgent groups in the Congo and elsewhere against civilian jetliners.) The availability of these weapons, technology, and expertise will give potential adversaries the means to feel more confidant in attacking US citizens and interests abroad and possibly within the borders of the United States.

The growth of poverty, extremism, and organized crime in the developing world, as well as the growing disparity of wealth between nations and between the elite's and working classes within nations, have contributed to making the US a prime target for asymmetric challenges. The poor, undereducated, and disenfranchised have historically been the primary source for recruits by extremist groups because they are generally the segment of a population who is suffering the most from the failings of their governments, and because they have the least invested in the status quo. In short, they have the least to lose, and the most to gain by engaging in anti-government activities.

Extremist groups throughout the developing world routinely utilize religious or ethnic ties and issues to legitimize themselves and their cause to the disenfranchised. They also attempt to convince them that their government, another ethnic group, or external entities such as the United States are the cause of their poverty, misery, or lack of equal political representation. These masses then become willing participants in

what is often labeled as a "Holy War", or just cause against the perceived source of their problems.

Since the 1970s organized crime organizations have posed direct threats to legitimate governmental control, economic growth, and general stability in several developing nations. The international reach and criminal operations of these organizations impacts directly on the United States, and places us in the position where we must attempt to combat them. The two most powerful organized crime organizations which the US must currently contend with are international drug cartels and the Russian Mafia. These organizations have the financial resources and strength of will to enable them to conduct asymmetric attacks against the US government or US military if they reach the point where they feel seriously threatened by US counternarcotics or anti-crime efforts.

The globalization of transportation, communications, and banking have made the United States and most of the developed world more vulnerable to asymmetric threats. Intercontinental travel in the past decade has become easier, cheaper, and more available than at any other time in the history of the world. With the millions of people crossing international borders every day it has become increasingly difficult to scrutinize or monitor them all. It is impossible today for immigrations and customs services to intercept every criminal or terrorist transiting their airports, ports, and border crossings. The signing of the Schengen Accords a few years ago has also made it even easier for terrorists to transit European borders. These accords eliminated

most border controls between selected European Union (EU) countries. Non-EU visitors to an EU country now only undergo customs checks at their initial port of entry. Once they have cleared that port or airport, they are free to travel unmonitored across the borders of most Western and Central European countries. So a would-be terrorist can pick their entry point in the country with the most lax security checks (or a country with sympathies for their cause,) and then travel on unmolested to another EU country to carry out their terrorist acts.

In addition, since the 1960s, the opportunities for people from the developing world to immigrate to developed nations have increased substantially. In the United States, for example, prior to the mid 1960s we had severe immigration quotas which favored people from European countries, while limiting the number of new immigrants from developing nations. During the 1960s and 1970s several European countries opened their doors to immigrants from the developing world as well. For example, Germany took in millions of Turkish 'Guest Workers'; thousands of Indians, Pakistanis, and African immigrated to Great Britain; and many Arabs and Senegalese moved to France. The world has truly become a great "melting pot". While there are many positive aspects of this mass migration, there are also negative points. These new immigrants often establish enclaves in their adopted country and resist assimilation into their new cultures. Because these unassimilated immigrants often maintain a greater sense of loyalty to their old country or their religious affiliation than their new country, they are routinely targeted for recruitment by

extremist groups who have an ethnic or religious connection with them. Foreign intelligence organizations, criminal syndicates, and terrorist groups all attempt to play on religious, ethnic, family, clan, or cultural ties they have with these new immigrants in order to co-opt them as active members or as a support mechanism for their nefarious activities. The Israeli intelligence service "Mossad" for example, regularly seeks the assistance of members of the American Jewish community (Especially lawyers) to perform such functions as renting 'safe houses' which they utilize for meetings with clandestine agents here in the United States. The Irish Republican Army (IRA) and the Hizballah terrorist organization both have established support 'cells' here in the US to conduct fund raising activities. Irish pubs and Mosques in US cities are often the favorite locations for these two groups to do their recruiting of new members and fund raising activities. In most cases, the US citizens supporting these groups will not engage in illegal activities nor be asked to carry out actual terrorist acts in their country of residence. (Although US citizens did assist in the World Trade Center bombing in New York City.)

The point of the above two examples is that a future foe who is planning an asymmetrical campaign against the United States or other developed country, will find it relatively easy to travel, and is likely to be able to establish a support base within the target country to assist them in carrying out their activities.

Other contributors to our vulnerability to asymmetric warfare are our inherent openness, laws, and national character and

endemic Western beliefs. A vast amount of information is available in open sources in the US, which can assist our enemies in identifying and targeting key installations, personnel, technology, or strategic centers of gravity. There would likely be a public outcry from the American public, however, if the US government or military started taking actions to deny the public access to this information. A foe could cause significant unrest among the American civilian population by forcing the US government to take actions which added more secrecy; more surveillance of US citizens, or caused the government to impose martial law or other restrictions to civil liberties.

The American public is also relatively unaccustomed to and intolerant of disruptions in public services. An enemy utilizing asymmetric methods is likely to capitalize on these facts by striking at the most vulnerable and critical parts of our infrastructure; the goal being to cause the American public to stop supporting the conflict.

Lastly, since the Vietnam War, many of our enemies have viewed America's strategic center of gravity to be the lack of will by the American public and government to sustain large numbers of casualties, or to endure a protracted conflict where our national survival is not at stake. This proved to be the case in several instances, such as during the US Marine Corps deployment to Beirut in 1982-84 and Somalia in 1993. It can be argued that Saddam Hussein and Slobodan Milosevic are banking on America's lack of long-term national will in our conflicts with Iraq and Serbia today.

In any case, future foes are certainly likely to expend considerable efforts in attacking or exploiting our national will. North Vietnamese leader Ho Chi Minh put it aptly when he said (referring to Americans) "They will kill many of us and we will kill a few of them, and they will tire first." In many cases, an asymmetric foe doesn't need to win every battle; he must only avoid losing the war.

Asymmetric Threats and Methods

Guerrilla Warfare

Guerrilla warfare is generally characterized as conflict waged by small, irregular, formations that utilize unconventional methods and tactics against a numerically or technologically superior conventional foe. For the purpose of this paper, I will include "insurgencies", "unconventional warfare", and "irregular warfare" within the same general category as guerrilla warfare.

Guerrilla warfare is certainly one of the oldest forms of asymmetric combat. Hebrew tribes fought guerrilla actions against Roman Legions in the days before Christ. The Gauls and Celtic tribes also used guerrilla tactics (such as ambushes and deception) against the Romans during the Roman invasion and occupations of Germany and Britain. The Germanic chieftain Arminius, for example, ambushed and destroyed three elite Roman legions in the Teutenburg Forest in 9 AD.

The modern concept of guerrilla or insurgent warfare,
however, can be traced to the struggle carried out by the Spanish
people against Napoleon's army during the Peninsular War of 1808-
1814. In fact, the term "guerrilla" originated during that
conflict.

Guerrilla warfare has also been used effectively by major
world powers in conjunction with the framework of a conventional
total war. During WWII, the Soviet Union utilized huge numbers
of partisans behind German lines. These partisans conducted a
guerrilla campaign which effectively tied-up nearly one third of
the approximately 260 German divisions engaged on the Eastern
Front. In an excellent example of the effective use of
guerrillas, Soviet partisans conducted literally thousands of
attacks prior to the 1943 battle of Kursk, causing the Germans to
redirect many combat formations to the task of rear area security
rather than taking part in the general assault.

Guerrilla warfare has been present in the American military
experience throughout or history. American Indian tribes fought
each other in this fashion long before the white man ever set
foot on the continent. Early European settlers and later US
military forces engaged in a nearly constant state of counter-
guerrilla, or counter-insurgency, operations against various
native tribes until the 1890s. Roger's Rangers fought as a
guerrilla force against the French during the French and Indian
War. During the American War of Independence, American patriots
such as Francis Marion and several others conducted significant
guerrilla campaigns against British forces and their Tory allies.

Confederate cavalry commanders such as Colonel John Mosby, General Bedford Forrest, and irregular forces like William Quantril's Raiders, engaged in guerrilla operations against the Union Army during the American Civil War. In 1898 the American Army found itself engaged in protracted counter-guerrilla operations against Filipino nationalists and Moro tribesmen in the Philippines. In the 1920s, small groups of US Marines were used to track down and harass the numerically superior insurgent forces of the famous Nicaraguan socialist Augusto Sandino. During WWII bands of American and Filipino forces fought a guerrilla campaign against Japanese forces occupying the Philippine Islands. The 1000 day Vietnam War proved to be the longest counter-guerrilla conflict fought by the US military during the 20th Century, it was also the first time a technologically superior US force was defeated, in a strategic sense, asymmetrically.

Prior to the 20th Century, most guerrilla or insurgent movements were generally 'home-grown' movements which received little or no support from outside sources. During the 20th Century, however, it became common (especially during WWII and the Cold War) for guerrilla movements to receive supplies, weapons, training, and even guidance from third parties not actively or overtly engaged in the conflict. An exception to this was The New People's Army (NPA); a communist insurgent movement in the Philippines which waged a guerrilla war against the Filipino Government from the 1970s through the early 1990s.

The NPA received little or no known outside support throughout their many years of armed conflict.

The post-Vietnam Cold War saw US military forces and American Intelligence officers engaged directly, or as advisors, in numerous insurgencies throughout the developing world. US Marines were deployed to war-torn Beirut in 1982-1984, the CIA helped Afghani guerrillas defeat Soviet troops during the war in Afghanistan from 1979 to 1989, and Army Special Forces advisors assisted the El Salvadorian Army during operations against the communist FMLN insurgents from 1981-1992.

There are scores of examples of US and other countries participating in insurgencies or guerrilla warfare since the end of WWII. The demise of the former Soviet Union led many to believe that the days of guerrilla warfare were a thing of the past, since communist expansion ceased to be a major threat or concern. Ironically, the US victory during the Gulf War has now led some in the US military establishment to predict that the world is likely to see a rise in guerrilla conflicts and challenges in the future, since the Gulf War firmly established that a conventional war against a professional, technologically superior Western army is not likely to succeed. However, the US military continues to move ahead aggressively in creating highly technical 'digital' forces in anticipation of fighting a future foe in a conventional conflict, while doing little to prepare for the more likely guerrilla, or asymmetric, threats which they will face during the coming years.

Terrorism

For the purpose of this paper, I am defining terrorism as the use of violence, or the threat of violence, against military or non-military targets as a means to create a general climate of fear and intimidation in order to gain publicity or influence an opponent to adopt or concede changes or conditions sought by the protagonist. [7]

Terrorism, like guerrilla warfare, has been used as a method of asymmetric warfare throughout the history of mankind. Jewish nationalists in Judea routinely attacked Roman officials and Jewish collaborators in the 1st Century AD. [8] During the Peninsular War, in was common for Spanish peasants and guerrillas to ambush French stragglers, supply trains, and pro-French Spanish collaborators. Prisoners captured during these attacks were often brutally tortured, disfigured, and murdered; their ravaged corpses or severed heads were then placed in prominent locations where other French soldiers or Spanish collaborators would see them. These actions were taken in part out of vengeance, but they were also meant to terrorize their enemies. As a result, the French Army in Spain was required to devote thousands of troops to protect their lines of communications from these attacks. French soldiers eventually reached the point where they were ordered not to travel away from their units or garrison without a substantial armed escort. French soldiers also started wearing civilian clothes rather than their uniforms when they were away from their units in order to lower their

profile and hopefully avoid the notice or attention of the ubiquitous bands of marauding bandits and guerrillas. Terrorism as an asymmetric tactic severely damaged the moral and effectiveness of the French forces fighting in the Peninsula, factors which significantly helped the British forces, under the Duke of Wellington, eventually to defeat the French and drive them out of Spain in 1814. The constant drain inflicted on his forces by Spanish guerrillas and the British Army caused Napoleon to describe the Peninsular War as his "Spanish ulcer".

The Filipino New People's Army achieved similar results in the 20th Century. The NPA primarily waged a guerrilla war in the rural parts of the Philippines from the 1970s through the early 1990s. In urban areas, however, they utilized special assassination squads called "Sparrow Teams", to kill key Filipino government and military leaders, and to create a general climate of terror. In the late 1980s, these Sparrow Teams murdered some 400 Filipino policemen in one year in Manila and a few other large cities in the Philippines. US advisors to the Filipino government and military were also targeted for assassination during this period. A Sparrow team killed US Army Colonel Nick Rowe during a visit to Manila in the late 1980s. Communist terrorists also repeatedly fired weapons and threw grenades at the US Embassy in Manila. (In one attack, even the scores of local residents lined up outside the Embassy's councilor office were fired upon.) This campaign of terror eventually forced the Philippine Army to order their troops not to wear their uniforms when in urban areas and to be armed when off duty in order to

avoid being targeted. The NPA clearly achieved at least a psychological victory over the Filipino government through their use of terror. By 1993, after 20 years of fighting, the Philippine government changed its long held policy of refusing to legalize the Communist Party by allowing them to participate in the electoral process. This effectively ended the insurgency and terrorist campaign.

Domestic Terrorism in the United States

The United States has been the victim of terrorism since revolutionary times. Until the 1940s, most terrorist acts in the United States were homegrown, or domestically oriented terrorism. For example, the sacking of Tory shops and newspaper offices and the tar and feathering of loyalists by revolutionaries could be described as some of the first acts of domestic terrorism which occurred on the North American continent. Later, in the early 1800s, the Luddites (an anti-technology and industrialization movement) made numerous attacks on factories to destroy new technological devices such as cotton gins. The Luddites believed that these new technologies were taking away the jobs and livelihood of the traditional, man-intensive, agrarian work-force (an argument repeatedly heard even in the 20th Century whenever a new technology is introduced which causes jobs to be cut.) In the late 1860s and again in the early 1870s, Civil War veterans of Irish decent called Fenians conducted large-scale raids and

terror attacks into Canada from US soil. Their aim was to help win independence for Ireland. Former Confederate cavalry commander Bedford Forrest also created the Ku Klux Klan in the aftermath of the Civil War. The Ku Klux Klan, or "Night Riders", used terror and violence to intimidate carpet baggars and sharecroppers in Southern states. The Ku Klux Klan actively continued to terrorize African-Americans and other minorities through lynchings, beatings, and the burning of homes or businesses until the 1940s.

Domestic terrorism diminished in the United States during the 1940s and 1950s. In the 1960s, however, there was a resurgence in homegrown terrorism. Militant groups such as the Black Panthers, The Weathermen, and the Symbionese Liberation Army to name a few, engaged in criminal and terrorist acts against the US Government, or the "Establishment" (their view of the existing social order in The United States during that time.)

In the 1970s and 1980s terrorism in the United States evolved to include highjackings and environmental terrorism. Anti-logging, anti-nuclear, and anti-industrial development groups formed and engaged in acts of sabotage, bombings and violent protests against logging companies, nuclear plants and various companies attempting to build factories which were not 'environmentally friendly'.

The 1990s saw the rise of separatist movements and militant religious fanatics. Groups such as the Montana Freemen, the Nation of Islam, violent anti-abortion organizations, religious cults, anti-Semitic groups, and American Muslim fundamentalists

have all engaged in violent terrorist acts within the borders of the United States. Anti-abortionists have bombed numerous abortion clinics and killed several doctors and nurses at these clinics and in their homes; a government office building in Oklahoma City was bombed as a protest against the US government; American Muslims assisted a foreign terrorist organization in the bombing of the World Trade Center in New York City. The list could go on and on.

Much of the media coverage and public reaction following recent terrorist bombings, such as at the World Trade Center building and in Oklahoma City, gave the impression that domestic terrorism was a new phenomenon. The previous several paragraphs, however, illustrate that this is a false impression. Domestic terrorism has been present in this country throughout US history, and it is likely to increase significantly in the near future as more disenfranchised segments of our population look for asymmetric means to attempt to force change, or seek revenge against the US government for any number of legitimate or perceived reasons.

International Extremists and State Sponsored Terrorism

While individual extremists or terrorists, and international extremist organizations have been present throughout history, state sponsored terrorism is a relatively new phenomenon. Few lone extremists or small cells of terrorists operating on their own have had significant impacts on the causes they are

struggling for or against (one notable exception may be the Serbian nationalist who killed Austrian Arch Duke Francis Ferdinand; an act which precipitated the First World War and ultimately led to the downfall of the Austro-Hungarian Empire.) The anarchist movements in the late 1800s, and the Luddites in the early 1800s are examples of extremist movements which failed to achieve their goals, as did more modern extremists like the Puerto Rican nationalists who attempted to assassinate President Harry Truman in the late 1940s and Timothy McVeigh when he and his associates bombed a government office building in Oklahoma City in the mid 1990s. Extremists, who are financed, trained, guided, and supported by a nation-state, however, tend to be much more effective and pose a much greater threat.

State sponsored terrorism, as we know it today can be traced back to 1948 with the creation of the state of Israel. Thousands of Palestinians fled or were forced from their homes in Palestine during Israel's war of independence. These refugees formed the nucleus of most of the present terrorist organizations currently operating in the Middle East. Arab countries surrounding the newly formed state of Israel harbored these refugees and encouraged them to engage in activities against Israel. Prior to the 1960s there were relatively few significant terrorist acts committed by these Palestinian organizations. This changed after the 1968 Arab-Israeli war.

The 1968 war was a spectacular victory for Israel. Besides defeating the Arab armed forces, the Israelis also succeeded in capturing the Golan Heights from Syria and the holy city of

Jerusalem from Jordan. These humiliating losses, and twenty years of living in refugee camps, caused thousands of young Palestinian men to join militant organizations such as the Palestine Liberation Army (PLO). Their goals were to destroy the state of Israel and create a Palestinian homeland through violent revolutionary actions.

The growth of these militant Palestinian movements was viewed as an opportunity by Israel's Arab neighbors and enemies to confront Israel militarily without actually having to go to war themselves (probably a wise decision considering the consistent lack of success these countries have had against Israel on the battlefield.) Money, training, and equipment soon was being funneled to these groups by countries hostile to Israel and a new era of terrorism and violence began.

The Cold War struggle between the Eastern Bloc and the West fanned the flames of terrorism further. The former Soviet Union, East Germany, North Korea and Cuba in particular all assisted numerous international terrorist groups who were anti-Israel, and more particularly, anti-US. Several countries in the Middle East, such as Libya, Syria, Sudan and Iran also actively supported terrorist organizations in a worldwide struggle against Israel and the West. Even Saudi Arabia provided substantial amounts of financial assistance to the PLO and other terrorist groups. The US, Israel, and several Western countries all had interests and personnel targeted by terrorist groups which were being sponsored by the communist world or by rogue nations. Terrorist groups such as the Bader Meinhof Gang, the Red Army

Faction, the Japanese and Italian Red Armies, Hizballah, The
Islamic Jihad, the African National Congress (ANC) and the PLO
all conducted terrorist campaigns at one time or another against
various Western countries with the support of a state sponsor.

US military bases and personnel were routinely targeted in
Western Europe throughout the 1970s and 1980s. Terrorist bombing
succeeded in killing hundreds of US servicemen in Beirut in 1982,
and scores more were killed recently in Saudi Arabia. US
embassies and businesses have also often been the target of
terrorist attacks by state sponsored terrorist groups. Two
embassies in Beirut were destroyed in the 1980s, for example.
Numerous US and Western government officials or civilians have
also been taken hostage or were assassinated by these groups as
well.

In addition to state sponsored terrorism, the 1990s saw the
development of a terrorist movement being financed by an
individual instead of by a state. Exiled Saudi Muslim
fundamentalist Osama bin Laden has waged a terrorist war against
the United States since the end of the 1990-91 Persian Gulf War.
His followers were responsible for bombing a US Air Force
barracks (Khobar Towers) in Dhahran, Saudi Arabia in 1996, and
the US embassies in Kenya and Tanzania in 1998.

It is clear that the use of terrorism as an asymmetric
challenge to the United States is not anything new. However, it
is almost a certainty that the use of terrorism against the US
will increase in the coming decades.

Radicals and extremist worldwide, the disenfranchised segments of our own populations, and belligerent nation-states will turn to terrorism as a weapon for four reasons. The first reason is because the Gulf War demonstrated to the world the awesome power and capabilities of the US military. Few of our likely enemies are likely to engage us conventionally because they know they will not win. The second reason is that terrorism is a much cheaper alternative than a conventional war. The third reason is that plausible deniability goes along with terrorism. That is, is extremely difficult to tie a terrorist act directly to a state sponsor. The fourth, and most important, reason is because large, well armed and supported terrorist campaigns have proven fairly effective in the long run. If an enemy is patient and determined, he can use a well-run terrorist campaign to wear down an opponent, destroy his enemy's national will, and eventually achieve his objectives.

It can be argued that the PLO's thirty year terrorist campaign ultimately was successful in wearing down the Israelis to the point were they became willing to give up captured territory and allow a Palestinian homeland. The Iranian-backed Islamic Jihad was also ultimately successful in driving US military forces out of Lebanon in the mid 1980s.

Terrorist groups worldwide have successfully forced the governments they oppose to enact changes which ultimately help their long-term causes. For example, the Muslim Brotherhood in Egypt assassinated Egyptian President Anwar Sadat, made repeated attacks on tourists, and has disrupted the economy and general

social order in Egypt. Their actions have forced the Egyptian government and military to enact more restrictive domestic security measures and to aggravate some religious segments of their population by imprisoning radical clerics. At the same time, the civil population experiences diminishing public services and safety. All of these measures result in a further reduction in faith in the Egyptian government by the general population; thus bringing the Muslim Brotherhood one step closer to achieving their long-term goals of fermenting an Islamic revolution, and eventually transforming Egypt into an Iranian-like Islamic state. Algeria is currently undergoing a similar but far bloodier crisis.

Weapons of Mass Destruction

The use of weapons of mass destruction (WMD) by a future enemy poses the single greatest military threat to our nation. As a result, the threat of WMD being used against us is receiving a great deal of attention among US government, military, and academic circles. Hospitals in large urban cities are developing and practicing plans to handle mass casualties, and the Pentagon plans to form "Homeland Defense" units within the National Guard to assist in WMD incidents on US territory.

The current flurry over and general perception of being unprepared regarding potential WMD threats gives the impression that this is a new kind of threat facing the US. To an extent, this is true. One form of WMD, nuclear weapons, has only been

used once in combat against a belligerent nation, and that was in

a conventional, force-on-force, total war. Many US government

and intelligence analysts, however, believe that several

countries which are hostile to the United States (such as Iran

and Iraq) are within less than ten years from creating or

obtaining a nuclear weapon; substantially increasing the

possibility of a nuclear strike against US territory or interests

in the near future. Chemical and biological weapons are, however,

a different story. Chemical and biological weapons have been

used on numerous occasions throughout history.

Chemical weapons were used extensively during the First World

War by both sides in the conflict. The Iranians and Iraqis also

used chemical weapons against each other during their eight year

long war (1980-1988). Iraqi leader Saddam Hussein utilized

chemical weapons on his own rebellious Shiite minority in

Northern Iraq in 1991-92. Riot control agents have been used in

numerous conflicts, including use by US troops during the war in

Vietnam (in Vietnam, US troops often pumped riot control agents

into Viet Cong tunnel complexes.) There were also several

unconfirmed reports of Soviet forces using chemical agents on

villages in Afghanistan in the 1980s. Large numbers of chemical

weapons, in several forms, are currently in the arsenals of

numerous nations which are hostile to the United States. These

weapons could easily be transferred to a terrorist organization

or used clandestinely on US territory.

The most serious WMD threat the US is likely to encounter in

an asymmetric campaign during the next decade, however, is the

use of biological weapons. Biological weapons can be relatively easily obtained or produced, and can be delivered through a variety of methods. The production of nuclear weapons, however, requires a much greater level of technological expertise and infrastructure than does biological or chemical weapons. Nuclear weapons also require larger, more sophisticated, delivery systems than do biological weapons. Lastly, biological weapons are preferable to an asymmetrically oriented foe because their use will require a smaller quantity of material, are more easily transported, can be deployed more clandestinely, and have greater psychological and long-term impacts than other WMD.

Biological weapons are indeed the ideal terror weapons. A very small quantity of a common and easily obtained or produced biological agent such as anthrax can be transported in an aerosol or powder form and then released directly into crowded urban areas, causing hundreds or thousands of casualties in a matter of days. The fact that United Nations inspectors located aerosol spray tanks on several Iraqi military aircraft following the Gulf War adds credence to this potential threat.

Currently, it would also be extremely difficult (probably impossible) for the US government or military to protect everyone in the United States from a biological threat. Presently there is an insufficient quantity of vaccinations for even the most common biological agents. The situation is even more problematic if a disease like smallpox is used (no US companies are manufacturing smallpox vaccinations, and the US government currently has an emergency inventory of only 6000 doses of

smallpox vaccinations.)[9] It is also feasible to combine multiple agents in one weapon. For example, anthrax, influenza and smallpox could all be delivered at the same time. By the time health officials realize that they are battling multiple agents it will likely be too late to treat everyone who was exposed to them, or to contain them from being spread further.

Historically, biological weapons have been used since at least the 14th Century. The first recorded case of the use of a biological weapon occurred during that century when a force of invading Tatars laid siege to Kaffa in the Ukraine. When the Tatar force developed a plague epidemic within their own forces, they turned it into an opportunity by using a catapult to fling their diseased cadavers into the enemy fortress. Biological warfare was used during the French and Indian War (1754-1767) well. The British commander in North America, Sir Jeffrey Amherst, ordered blankets infected with smallpox to be delivered to local Indian tribes which were hostile to the British.

Biological weapons have also been used during the 20th Century. During WWII, Japanese forces (Unit 731) released plague-infected rats into several Chinese cities, which resulted in numerous serious epidemics. Unit 731 also conducted biological weapons research and testing on Allied and Chinese Prisoners of War-resulting in the deaths of over 10,000 prisoners. [10] The Viet Cong often dipped "punji stakes" into cattle dung, or other substances, so an infection would result (in addition to a puncture wound) when stepped on by US soldiers.

Saddam Hussein has also reportedly used Anthrax on rebellious Kurds and Shiites in Northern Iraq.

Biological agents have also been used by non-military entities several times since the 1970s. At least 7 assassinations were conducted in the mid to late 1970s by the Bulgarian secret service. The Soviet Union developed a clandestine weapon for the Bulgarians to use to kill Bulgarian defectors living abroad. An umbrella was fitted with a spring mechanism which when activated would inject a tiny Ricin (A lethal toxin derived from caster beans) filled pellet into the victim. In the United States, the Rajneeshee cult intentionally used Salmonella to contaminate the salad bars at several restaurants in Oregon in 1984. Over 750 cases of enteritis and 45 hospitalizations resulted from this incident. In 1995, the Japanese doomsday cult, Aum Shinrikyo, released Sarin into Tokyo's subway system. Police investigations discovered that the cult was also conducting research to develop other forms of biological weapons. In fact, the Japanese police found and seized drone aircraft which were equipped with botulism filled spray tanks from the cult's compound. [11]

Information Warfare

The term "Information Warfare" (IW) entered into our lexicon several years ago. It is often listed as a major threat and means of warfare in the near future. Information Warfare, when discussed in terms of attacking or defending computer systems and

critical electronic components is indeed a new form of warfare.
However, other forms of IW, such as deception, propaganda, and
code breaking have been around since man began waging war on each
other.

Roman Emperor Julius Caesar was one of the first great
military commanders to develop and use a cipher system for his
important communications. It can be argued that this was an
early form of information warfare in that his objective was to
deny the enemy information.

Deception as a means to deny the enemy information or
knowledge of a commander's plans and intentions on the
battlefield has also been used throughout history. Napoleon
Bonaparte was a master practitioner of deception and IW on the
battlefield. Napoleon regularly took steps to mask the movements
and dispositions of his formations. He also often attempted to
deceive his enemies by sending false reports or official
correspondence via multiple couriers and aides, and sent them
(unwittingly) along routes where there was a high probability of
capture by the enemy he intended to deceive. [12]

During the American Civil War both the Union and Confederate
forces routinely tapped into telegraph wires in an attempt to
intercept the other side's communications.

Many forms of IW were in use during WWII. For example, the
decrypting by British and Americans forces of German and Japanese
codes was a major contributor in the Allied victory over the Axis
powers. Propaganda broadcasts and broadcasts of information to
deceive the enemy were common during WWII. Prior to D-Day, for

example, OPERATION FORTITUDE (The 1944 D-Day deception plan) included false radio reports from German double agents operating in England. These reports were orchestrated and coordinated by MI5 in order to convince the German High Command that the Allied invasion would take place at Calais rather than at Normandy. This was unquestionably one of the most successful IW operations in history.

The current concept of IW, however, revolves primarily around defending or attacking computer systems and electronics. IW is indeed a major future threat for US forces, since the US military is becoming more and more dependent on computer systems on the battlefield.

The currently being planned "Army After Next" and "Force XXI" concepts for the US Army are centered around digitizing combat formations; to include utilizing computer systems to provide "just in time" logistics (i.e., a computer in a tank would tell a computer at a logistics node that the tank is out of ammo, the logistics center would then send the tank a resupply of ammunition "just in time".) This is a very troubling concept for many combat officers in the US Army because of the propensity for computers to break down or be disrupted at critical times. A future asymmetric or conventional foe is likely to attempt to hack into, disrupt or disable these computer systems, causing the critical resupply of ammunition to arrive "just too late".

One of the primary reasons why an asymmetric opponent is likely to engage in IW is because it is a means of attack where they can potentially challenge the US on more or less equal

terms. Even the poorest of developing countries will either have its own hackers, or could afford to employ a capable hacker from a more computer literate nation, who can play havoc on US computer systems.

Advances in communications will also benefit an asymmetric enemy. A great deal of the newest, most sophisticated, communications technology is rapidly spreading throughout the developing world. A future foe in one of these nations is likely to possess non-nodal communications systems which utilize highly effective commercially available encryption software or equipment. These developments will make it even more difficult for US forces to locate, monitor or destroy an opponents communications.

Urban Warfare

Based on current demographic trends, 60-70 per cent of the world's population will live in large cities within the next twenty years. Large open plains, ideal for the movement of armored corps, are becoming fewer and fewer as the world becomes more urbanized. In addition, combat in urban areas has always been a costly endeavor, especially to the attacker. For these reasons, future asymmetric enemies are likely to attempt to draw US forces into fighting them in urban areas.

There are many advantages to fighting US forces in urban areas for an asymmetric foe. The urban area is likely to be home turf which is familiar to them, which gives them the advantage in

local area knowledge and rapid mobility through heavily developed areas. The enemy is also likely to have a base of support among the local population who can provide assistance and sanctuary. Much of the US military's high technology equipment will be less effective in urban areas. For example, communications which require line-of-sight, as well as radars and imaging systems, will be degraded, and large armored vehicles and helicopters may not be able to operate effectively in all urban areas.

Another advantage to an asymmetric enemy is that it will be much more difficult for US forces to identify actual enemy forces that are dispersed among the civilian population of a large city. Given the US military's strict Rules Of Engagement (ROE), it is unlikely that US troops will fire on potential target areas if there are large numbers of known civilians present in the impact area or fire zone.

An asymmetric enemy will use these facts to their advantage by positioning themselves or their equipment near dense civilian population centers or sensitive cultural or religious structures. They stand to gain a propaganda victory if US forces accidentally, or intentionally, kill large numbers of civilians or destroy national or religious shrines, hospitals, or other civilian facilities. Saddam Hussein attempted this during and after the 1990-91 Gulf War when he positioned aircraft and other equipment near Mosques, hospitals, and cultural landmarks. Hussein also attempted to utilize human shields (both civilian volunteers and allied POWs) as a means to deter coalition aircraft from bombing specific targets.

From a historical perspective, there are numerous examples of weaker forces using urban warfare effectively against a more powerful enemy. An army made up mostly of civilians succeeded in defending the Spanish city of Saragossa for eight months against a superior, highly professional and battle hardened, French force in 1808-09. Most of the Spanish defenders were residents of the city or the surrounding area and consequently put up one of the most spirited stands by any Spanish force during the whole of the Peninsular War.

In 1968 the Viet Cong captured the South Vietnamese city Of Hue. After murdering over 5000 of the city's intelligencia, the Viet Cong fought US Army and Marine forces for weeks in one of the costliest battles (for US forces) of the Vietnam War.

More recently, US forces in Somalia and Russian forces fighting in Chechnya faced determined defenders in urban environments. In October 1993, militia forces of Somali warlord Mohamed Farah Aideed ambushed US forces on the crowded streets of Mogadishu. The ensuing firefight resulted in 16 US soldiers killed and 83 wounded. Hundreds of Aideed's troops are estimated to have been killed as well. Despite losing the battle with TF RANGER Aideed won his war with the US because the casualties he inflicted on US troops were enough to force a change in US foreign policy. Not long after the battle US forces were withdrawn from Somalia and Aideed was left unmolested to carry on his struggle to assume power in Somalia.

Like the Americans in Somalia, the Russians were forced to withdraw from Chechnya in the mid 1990s after suffering a

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psychological and material defeat at the hands of an asymmetric enemy. The Russians, however, fought for a considerably longer period of time and endured considerably more casualties than occurred in Somalia.

It is unlikely that the lessons of these recent urban conflicts have been lost on or unnoticed by our future enemies. Furthermore, demographics, rapid worldwide urbanization, and the lack of and cost of conventional military equipment needed to fight the US conventionally will in all probability give a future asymmetric opponent no choice but to attempt to lure US forces into urban areas in order to level the playing field somewhat. The question is, with the current movement within the US military towards a smaller, more technology dependent force, will we be adequately prepared to fight these future enemies in urban environments.

Concluding Thoughts

The purpose of this paper has been to illustrate that few of the asymmetric threats currently being discussed in US defense and government circles are actually new. The world's history is full of examples of asymmetric methods, weapons, or techniques being used in conflicts involving US forces. The likelihood of the United State facing these kinds of threats more frequently, and with worse consequences, in the near future is, however, a much greater concern now than it was in the past. Never before in the history of mankind have entities hostile to the US had as

much access to highly lethal weapons and technology, available means of international travel and easy entry into the United States, or as large numbers of willing radical volunteers who are ready to sacrifice their lives or to kill others.

Will the US be ready to face these threats? The United States Army and other services are vigorously moving towards less manpower intensive, high technology dependent force geared to fight a future conventional war against a peer competitor. While that future force may be successful in a conventional conflict, it may not be adequately prepared to fight and win against a foe who chooses to engage the US in a purely asymmetric campaign. For example, will we have enough properly trained and prepared light infantry formations in our future force structure to conduct an extensive and prolonged campaign in tomorrow's mega-cities?

All of us as military and government leaders must ensure that our soldiers are prepared to handle these asymmetric threats; which we are so likely to encounter in the near future at an ever increasing pace. In addition, our nation's leaders must begin educating the American public about these potential threats and take steps now to develop programs and techniques to counter them and minimize the impact of their use against our citizenry and national interests, domestically and abroad.

ENDNOTES

1   Donald J. Wurzel, Kenneth R. McGruther and William R. Murray, <u>A Survey of Unclassified Literature on the Subject of Asymmetric Warfare</u> (Sherman Oaks, CA: Arete Associates, 1998), 1.

2   Ibid., 13.

3   Central Intelligence Agency, <u>Statement of Work for Asymmetric Warfare Threats to US Interests: Expert Panel Support</u> (Washington, D.C.: CIA, May 1998), 2.

4   Wurzel, 7.

5   Defense Intelligence Agency, <u>Background Paper for the Quadrennial Defense Review</u> (Washington, D.C.: DIA, 1997), 2.

6   Ibid., 2.

7   U.S. Army War College Strategic Studies Institute, <u>Challenging the United States Symmetrically and Asymmetrically: Can America be Defeated?</u> (Carlisle, PA: Carlisle Barracks, July 1998), 174.

8   Ibid., 175.

9   LTC George W. Christopher, USAF, <u>Biological Warfare: A Historical Perspective</u> (JAMA, August 6, 1997-Vol 278, No. 5, 412-416.

10   Ibid., 413.

11   Ibid., 416.

12   David G. Chandler, <u>The Campaigns of Napoleon</u> (New York, NY: Macmillan, 1966), 265.

BIBLIOGRAPHY

Baumann, Robert F., "Historical Perspectives on Future War". Military Review (March-April 1997).

Brown, Michael T., Terrorist Use of Weapons of Mass Destruction within the United States: Asymmetric Warfare Paradigm in the 21st Century. Carlisle Barracks, PA: U.S. Army War College, 1997.

Bunker, Robert J., Five-Dimensional (Cyber) Warfighting: Can the Army After Next be Defeated Through Complex Concepts and Technologies? Carlisle Barracks, PA: U.S. Army War College, 1998.

Bunker, Robert J., "The Terrorist: Soldier of the Future?". Special Warfare (winter 1997).

Central Intelligence Agency, Asymmetric Warfare Threats to US Interests: Expert Panel Support. Washington, D.C.: CIA Publication, 26 May 1998.

Central Intelligence Agency, Preempt, Disrupt, Defeat. Washington, D.C.: CIA Counterterrorist Center Publication, 1998.

Chairman Joint Chiefs of Staff, Joint Doctrine for Information Operations (Joint Pub 3-13). Washington, D.C.: CJCS, 1998.

Chairman Joint Chiefs of Staff, Joint Doctrine for Military Operations Other than War (Joint Pun 3-07). Washington, D.C.: CJCS, 1995.

Chandler, David G., The Campaigns of Napoleon. New York, NY: Macmillan, 1966.

Christopher, George W., Biological Warfare: A Historical Perspective (JAMA, August 6, 1997-Vol 278, No. 5, 412-416.)

Defense Intelligence Agency, Background Paper for the Quadrennial Defense Review. Washington, D.C.: DIA, 1997.

Grau, Lester W., "Bashing the Laser Range Finder with a Rock". Military Review (May-June 1997).

Grau, Lester W., "A Russian View of Future War: Theory and Direction". The Journal of Slavic Military Studies (September 1996).

Groves, John R., "Operations in Urban Environments". Military Review (July-August, 1998).

Hajjar, Sami G., _Security Implications of the Proliferation of Weapons of Mass Destruction in the Middle East._ Carlisle Barracks, PA: U.S. Army War College, 1998.

Henry, Ryan, "Military Theory and Information Warfare". _Parameters_ (autumn, 1998).

Hewish, Mark, "Warfare in the Global City". _Jane's_ (1 June, 1998).

Hoffman, Bruce, "Future Trends in Terrorist Targeting and Tactics". _Special Warfare_ (July 1993).

Hughes, Patrick M., _Global Threats and Challenges: The Decades Ahead._ Washington, D.C.: United States Senate Select Committee on Intelligence Hearing, 12 March, 1998.

Lasswell, James A., "Wall to Wall, Sea Dragon's Next Phase Explores Urban Warfighting Tactics for the 21st Century". _Armed Forces Journal International_ (January, 1998).

Lemelin, David J., "Marshal Suchet in Aragon". _Military Review._ (May-June 1998.)

Metz, Steven, _Counterinsurgency: Strategy and the Phoenix of American Capability._ Carlisle Barracks, PA: U.S. Army War College, 1995.

Metz, Steven, _The Future of American Landpower: Strategic Challenges for the 21st Century Army._ Carlisle Barracks, PA: U.S. Army War College, 1996.

Neuman, Stephanie G., _The Lessons of Recent Wars in the Third World._ Lexington, MS: Lexington Books, 1987.

Office of the Secretary of Defense, _Proliferation: Threat and Response._ Washington, D.C.: OSD, April 1996.

Office of the Secretary of Defense, _Report of the Quadrennial Defense Review._ Washington, D.C.: OSD, May 1997.

Pillsbury, Michael, _Chinese Views of Future Warfare: Implications for the Intelligence Community._ Washington, D.C.: United States Senate Select Committee on Intelligence Hearing, 18 September, 1997.

Tenet, George J., _Current and Projected National Security Threats._ Statement for the record before the U.S. Senate Armed Services Committee hearing on current and projected security threats. Washington, D.C.: U.S. Senate, 2 February 1999.

Tone, John L., The Fatal Knot: The Guerrilla War in Navarre and the Defeat of Napoleon in Spain. Chapel Hill, NC: The University of North Carolina Press, 1994.

U.S. Army War College Strategic Studies Institute, Challenging the United States Symmetrically and Asymmetrically: Can America be Defeated? Carlisle, PA: Carlisle Barracks, July 1998.

The White House, Presidential Decision Directive 39: U.S. Policy on Counterterrorism. Washington, D.C.: The White House, 1995.

Wurzel, Donald J., Kenneth R. McGruther and William R. Murray, A Survey of Unclassified Literature on the Subject of Asymmetric Warfare. Sherman Oaks, CA: Arete Associates, 1998.